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SHIFTING THE COMPOSITION
OF GOVERNMENT SPENDING:
IMPLICATIONS FOR THE REGIONAL
DISTRIBUTION OF INCOME

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SHIFTING THE COMPOSITION OF GOVERNMENT SPENDING: IMPLICATIONS FOR THE REGIONAL DISTRIBUTION OF INCOME

By Murray L. Weidenbaum [1]

This is a preliminary report on a study of the allocation of Federal Government expenditures in relation to the regional distribution of income in the United States.

Previous work in the field has followed two different lines of approach. Studies in the field of public finance have analyzed the geographic allocation of grants-in-aid and other federal budget categories; some of this work has dealt with questions of regional income distribution, but has ignored the impacts resulting from changing the allocation of the federal budget between defense and non-defense expenditures.

In contrast, the work on defense and disarmament economics has brought to professional and public attention the extreme geographic concentration of defense work but has not dealt with the effects of defense reductions or disarmament on regional income distribution. The present study is an attempt to link up these two approaches in order to shed some light on questions of concern to students of public finance and defense/disarmament questions as well as of regional development.

A brief review of the pertinent literature may be helpful. A study by James Maxwell in 1954 compared, by state, the per capita distribution of income and of federal grants. [2] He found that, for the period 1941-52, a marked shift

In favor of the lower-income states was noticeable. Howard Schaller, in a study covering 1929, 1939, and 1949 concluded that federal grants-in-aid were increasingly favoring low income states. [3]

An unpublished Ph.D. thesis by Norman H. Jones Jr. treated the distribution of all federal expenditures in the period 1929 to 1949. [4] He also found that the regional distribution of federal expenditures had shifted toward the lower income regions during the period covered by his study.

A landmark study of the geographic distribution of federal expenditures was made by Selma Mushkin, utilizing 1952 data. [5] She also concluded that the overall effect of federal expenditures worked in favor of the lower-income regions. Subsequently, I.M. Labovitz prepared for the fiscal years 1959-61, state-by-state estimates of federal revenues and expenditures, together with comparisons to personal income. [6] He developed methodology for dealing with the difficult problem of imputing defense procurement expenditures to individual states, which is drawn upon in the present study. None of these studies examined specifically the implication of a shift from defense to non-defense federal spending.

Recent developments in the economics of disarmament have focused attention on the regional problems which would arise from reductions in defense expenditures. Various approximations have been developed to measure the individual state's dependence on defense work. [7] In addition numerous studies have been made on the possible effects on individual areas of cessation or major reductions in defense spending. [8] None of these studies, however, have dealt with the impact

of reduced military spending on the distribution of income among regions. Hence, by focusing on interregional differences, this study hopes, in a small way, to fill a gap in the literature.

Methodology

The basic approach of this study is to select typical programs within each major category of federal expenditure and to compare their patterns of regional distribution among each other and with that for population and personal income in the United States. Generally the data used are for the fiscal year 1963, the most recent period for which comprehensive geographic information of federal programs is generally available. In some cases, such as for some of the newer Great Society programs, more recent information could be utilized.

The following programs were selected for analysis, the choice often being influenced by the availability of data. As is explained subsequently, expenditure data were not available in all cases and proxies were sometimes used, such as contracts awarded or employment generated. In the aggregate, the analysis accounts for the bulk of federal expenditures in 1963 and for representative programs in each major category, such as purchases of goods and services, grants-in-aid, transfer payments, subsidies, and direct government employment.

Defense purchases
1. Department of Defense procurement.

Direct Non-defense Purchases
2. National Aeronautics and Space Administration procurement (as an example of a new and high-technology type of program).

3. Corps of Engineers-Civil Functions purchases (this and reclamation were taken as examples of more traditional non-defense purchases and also could be allocated geographically).

4. Bureau of Reclamation purchases.

Grant Non-defense Purchases

5. Federaid highway program.

6. Aid to elementary and secondary education (an example of new federal
   activity with an anti-poverty orientation).

Subsidies

7. Farm price support payments.

Direct Transfer Payments

8. Veterans compensation and pensions.

Grant Transfer Payments

9. Public assistance.

10. Federal government employment.

The spatial classification selected is the eight income regions used by the Office

of Business Economics of the Department of Commerce (OBE) in its allocation of

personal income by region. Regions were ranked in terms of average per capita

incomes reported by OBE for 1963. [19] The results are shown below and indicate

the substantial regional variations; the average for the highest region was 58

percent above that for the lowest.

Region	Average Per Capita Income in 1963
Far West	$2,877
Mideast	2,819
New England	2,723
Great Lakes	2,605
Plains	2,332
Rocky Mountains	2,311
Southwest	2,076
Southeast	1,814

For purposes of more summary categorization, which is also used here, the following table shows, in a rough manner, which of the income regions can be considered as high, average or low.

The two regions designated as being the low income category have a significantly lower proportion of total personal income than of total population. The so-called average income regions have income shares which roughly correspond to their population shares. The high income regions have income shares considerably higher than their population importance.

Region	Share of National Population	Share of Personal Income
High Income	34.0	39.4
Far West	12.6	14.8
Mideast	21.4	24.6
Average Income	36.3	37.7
New England	5.8	6.5
Great Lakes	19.8	21.0
Plains	8.3	7.9
Rocky Mountain	2.4	2.3
Low income	29.7	22.9
Southwest	8.0	6.8
Southeast	21.7	16.1

Several measures of relative equality among the expenditure and income series were used: Lorenz curves, Gini coefficients, and simple percentage shares. As the literature indicates, there is no single all-purpose measure of income equality. /10 However, all of the three measures support the basic findings presented in this report.

Lorenz curves enable the reader to obtain a visual conception of the overall dis-
tribution among income categories, as shown in Figure 1. On the horizontal axis,
the eight regions are ranked in ascending order of average per capita income,
each region occupying a length of the axis which represents its percentage of
total population. The regions here serve as the conventional "income units"
which are commonly used on Lorenz curves of income distribution. Each region's
share of income (or federal expenditures, as the case may be) is plotted on the
vertical axis.

This procedure allows a graphic interpretation of each region's share of total
income or expenditure. The 45° line represents a perfectly equal per capita dis-
tribution (e.g. a region having 20 percent of total population would receive 20
percent of total income).

In the area below the 45° line (such as in Figure 1), a portion of a curve which
converges on the 45° line indicates a greater than equal share and a portion of
a curve diverging from the 45° line indicates a less than equal share. For pro-
grams whose curve have a slope greater than 45° (such as some of the federal
expenditure programs analyzed later), the converse holds; the portion of a curve
moving away from the 45° line indicates that a region is receiving a larger than
per capita share and the portion of the curve moving toward the 45° line indicates
that a region is receiving less than an equal share.

In contrast to the graphical nature of the Lorenz curves, the coefficient of concentration or Gini coefficient is a numerical measure of inequality in a distribution. The Gini coefficient represents the area between the Lorenz curve of the distribution (the curve of personal income in Figure I) and the line of equality divided by the area under the line of equality. The coefficient ranges from perfect equality, with a value of zero, to perfect inequality, with a value of one.

The Gini coefficient is useful for comparing the overall equality or inequality of one or more distributions. However, it does not show the pattern of distribution among income classes. Therefore, it is conceivable that two distributions may have identical coefficients, but somewhat differently shaped Lorenz curves. Coefficients with a positive sign indicate that most of the area between the Lorenz curve and the line of equality is below the line. Conversely, coefficients with a negative sign indicate that most of the area between the Lorenz curve and the line of equality is above the line.

In the charts presented here, federal expenditure programs with positive coefficients yield above-average per capita shares to low income regions.

Derivation of the Data

This section describes how the regional data were developed for each federal program and presents some comparisons with income and population distributions.

FIGURE 1

REGIONAL DISTRIBUTION OF PERSONAL INCOME, 1963
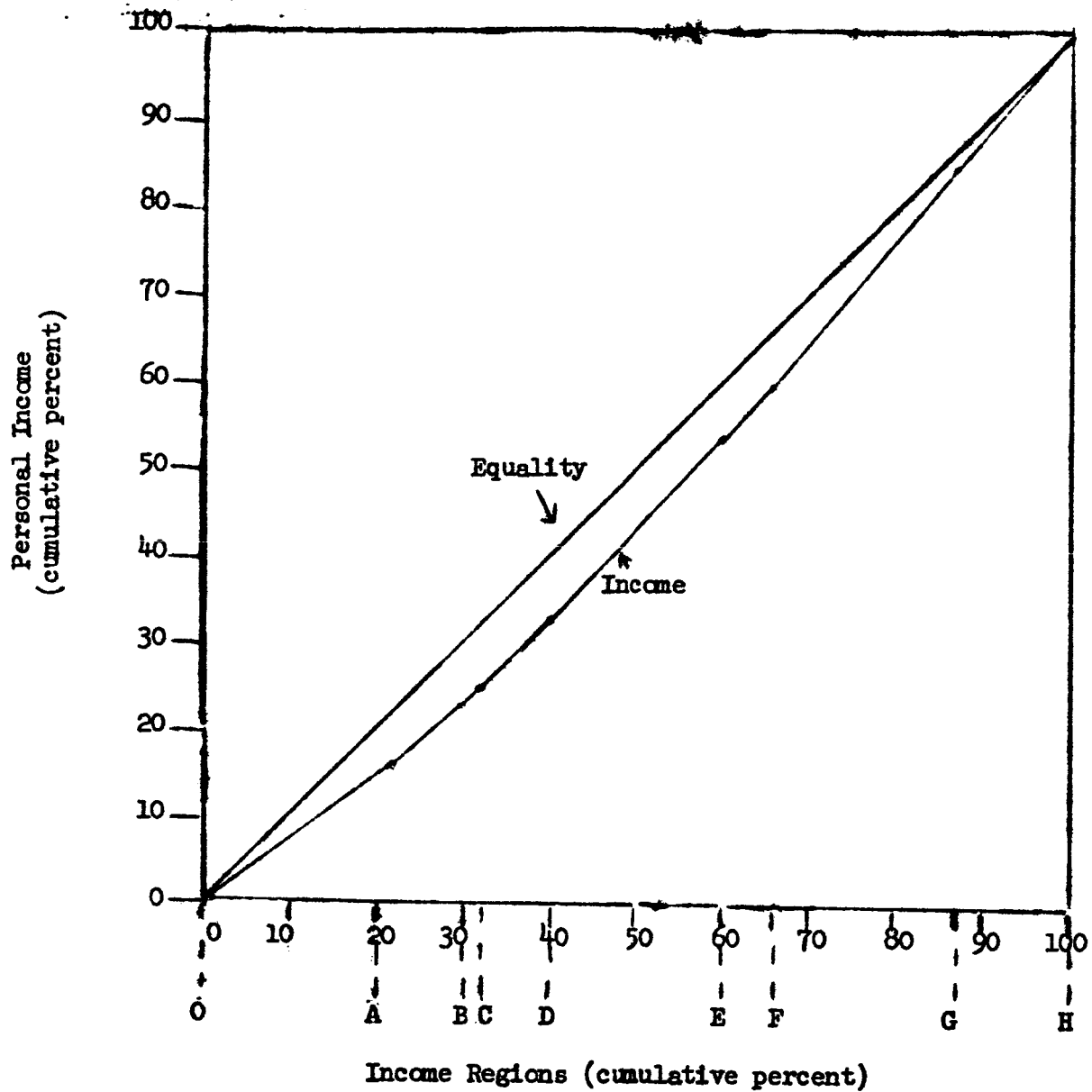
Income Regions (cumulative percent)

OA - Southeast
AB - Southwest
BC - Rocky Mountains
CD - Plains
DE - Great Lakes
EF - New England
FG - Mideast
GH - Far West

Defense Purchases

No comprehensive data are available on the regional distribution of federal pro-
curement expenditures. Of several approximation methods, the one most frequently
used is the Department of Defense state-by-state tabulations of prime contract
awards. The usefulness of these data is limited by the large number of subcon-
tracts awarded; on the average, one-half of the value of prime contracts is sub-
contracted to other firms. These subcontracts, in many instances, cross state
and regional lines, and to an undesignated extent, alter the geographical distri-
bution pattern of defense spending which emerges from an initial analysis limited
to prime contract awards.

Region	Defense Contract Awards (in millions)	Percentage Distribution		
		Defense Contracts	Population	Personal Income
Far West	$7,081	28.1	12.6	14.8
Mideast	5,550	22.0	21.4	24.6
New England	2,277	9.0	5.8	6.5
Great Lakes	3,171	12.6	19.8	21.0
Plains	1,602	6.3	8.3	7.9
Rocky Mountains	1,065	4.2	2.4	2.3
Southwest	1,662	6.6	8.0	6.8
Southeast	2,824	11.2	21.7	16.1
Total	$25,232	100.0	100.0	100.0

Gini Coefficient:

In an attempt to obtain a better estimate of the regional distribution of defense
procurement, three other methods of estimating state-by-state defense purchases
were utilized: (1) a Library of Congress study for the fiscal years 1959-61
using census data on regional distribution of industrial activity to get at the
subcontract problem, (2) a recent Harvard University thesis using a somewhat

similar approach for more recent periods, and (3) the state-by-state distribution of employment in the major defense-related industries. As shown in the table below, the differences yielded by the three alternate approaches are noticeable but not fundamental. Under all four approaches, the relatively high income regions--the Far West, the Mideast, and also New England--are estimated to receive shares of defense work which are above their shares of population and income. (see Figure 2) Hence, it appears that the regional distribution of defense activities--at least on the basis of available data--reenforces the position of the two regions with the highest average per capita income. Also, under all four approaches, the medium or average-income regions--the Great Lakes, the Plains, and the Rocky Mountain states--are estimated to receive shares of defense work which are below both their shares of population and of income. /11

The significant differences among the four estimates appear in the low income regions, the Southeast and the Southwest. Their shares of prime defense con-tract awards are substantially lower than both their shares of population and of income. The defense employment series--which covers both prime and subcon-tractors, but only in the major defense industries--shows even lower shares for these two low-income regions. However, the two studies which attempt to take account of the location of defense suppliers in supporting industries--in a crude way by use of Census of Manufactures data--yield substantially higher proportions for the low income regions. Although these estimates are still much below the results which would be obtained from a straight per capita distribution, they are a bit higher than the income shares of the two low income regions and, hence, indicate a mild tendency towards the reduction of income inequality at the lower extremity. The differences are hardly conclusive and further efforts

are being made to develop improved methods of estimating defense (and space)

employment by region and by industry.

Alternate Estimates of Defense Purchases

Region	Percentage Distribution					Rank				
	Dept. of Defense	Library of Congress	Bolton	Employ- ment	Aver- age	Dept. of Defense	Library of Congress	Bolton	Employ- ment	Aver- age
Far West	28.1	22.6	22.6	29.5	25.7	1	1	1	1	1
Mideast	22.0	20.9	21.9	20.9	21.4	2	2	2	2	2
New England	9.0	8.4	8.6	12.6	9.6	5	5	5	4	5
Great Lakes	12.6	15.4	14.8	13.8	14.2	3	4	4	3	3
Plains	6.3	6.1	5.8	6.7	6.2	7	7	7	6	7
Rocky Moun- tains	4.2	2.4	2.7	2.1	2.9	8	8	8	8	8
Southwest	6.6	8.3	7.5	5.5	7.0	6	6	6	7	6
Southeast	11.2	15.9	16.1	8.9	13.0	4	3	3	5	4
TOTAL	100.0	100.0	100.0	100.0	100.0					

For purposes of comparison with non-defense expenditure programs, a composite

series is shown which simply averages the results of the four alternate approaches

(see Figure 2).

Nondefense Purchases-NASA

The data used to allocate National Aeronautics and Space Administration (NASA) ex-

penditures--the state-bystate tabulation of the agency's prime contract awards--/12

are subject to the same limitations as the Defense contract series described

previously. However, little in the way of alternate information is available.

Figure 2

COMPARISON OF FOUR ESTIMATES OF DEFENSE EXPENDITURES BY REGION
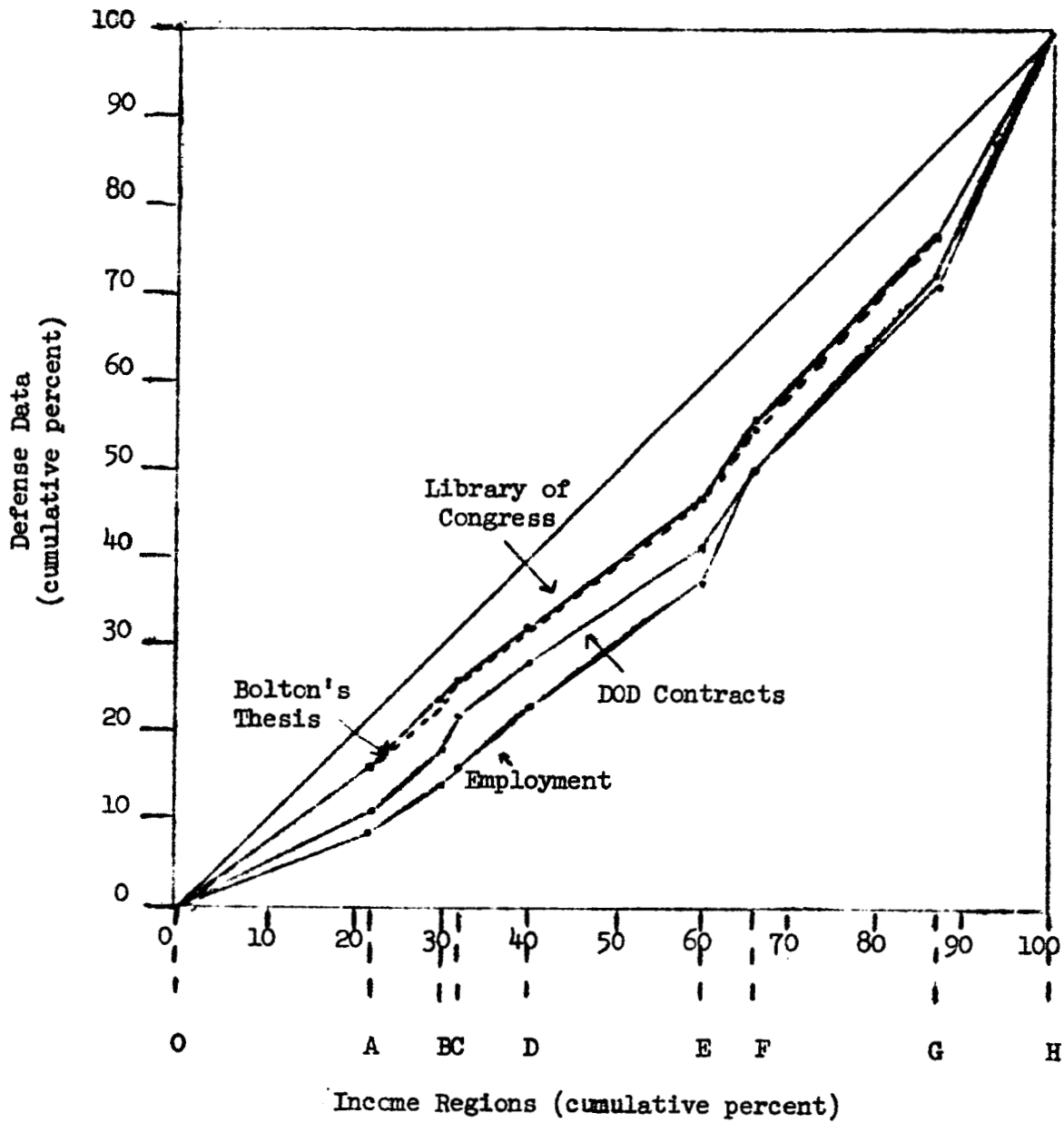
Income Regions (cumulative percent)

OA - Southeast
AB - Southwest
BC - Rocky Mountains
CD - Plains
DE - Great Lakes
EF - New England
FG - Mideast
GH - Far West

| Region	Contract Awards (in thousands)	Percentage Distribution		
		NASA Contracts	Population	Personal Income
Far West	$1,104,242	50.6	12.6	14.8
Mideast	258,379	11.8	21.4	24.6
New England	53,739	2.5	5.8	6.5
Great Lakes	71,797	3.3	19.8	21.0
Plains	209,540	9.6	8.3	7.9
Rocky Mountains	9,527	0.4	2.4	2.3
Southwest	65,066	3.0	8.0	6.8
Southeast	409,115	18.8	21.7	16.1
TOTAL	2,181,405	100.0	100.0	100.0
Gini Coefficients		+ .322		+ .090

As shown in Figure 3, this regional distribution of NASA procurement appears to be relatively unequal. All regions, except the Far West and Plains states, receive a less than proportional share. Undoubtedly, this situation results in large part from the fact that the high technology aerospace and electronics industries, which produce the bulk of the goods and services that NASA requires, are concentrated in certain areas of the country. Unlike the regional pattern of defense work, there can be little question of "chicken versus egg" explanation of causation here; the locations of the major industrial design and production facilities were established prior to the formation of NASA.

Figure 3

NASA PROCUREMENT AWARDS
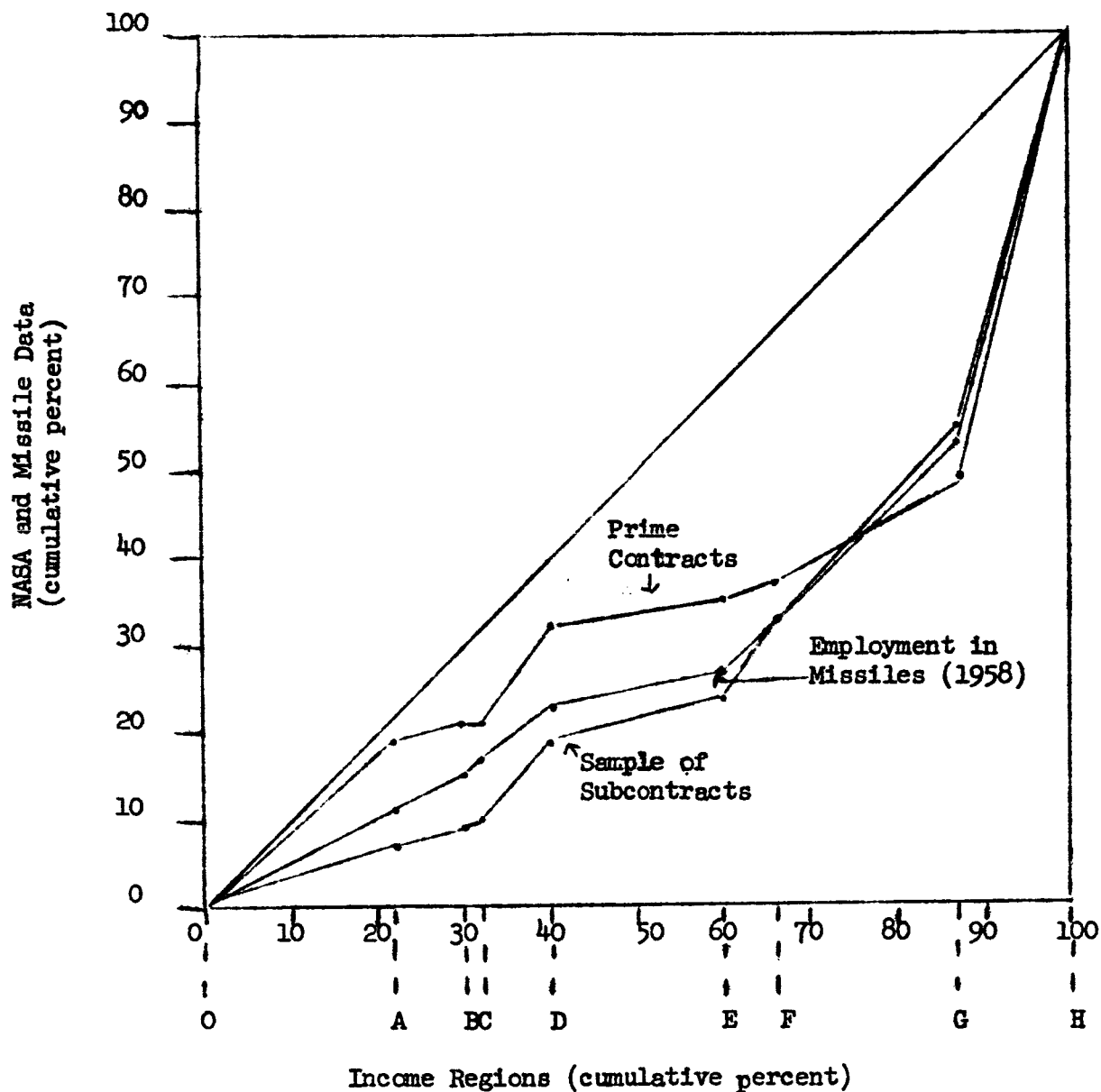
Income Regions (cumulative percent)

OA - Southeast
AB - Southwest
BC - Rocky Mountains
CD - Plains
DE - Great Lakes
EF - New England
FG - Mideast
GH - Far West

In fact, there is a striking resemblance of the current geographic distribution of civilian space work to the state-by-state distribution of missile employment in 1958, before the beginning of the NASA program. As the civilian space program originated as a technical outgrowth of ICBM and related missile programs, this correspondence should come as no surprise. Actually, the lowest income regions obtain a larger share of NASA contracts than they did of military missile employment. $\underline{/13}$

Some limited information is available on the geographic distribution of NASA subcontractors. Data on the first and second tier subcontracting of 12 prime contractors show that eight states received the prime contracts under study in the period January, 1962-June 30, 1963. $\underline{/14}$ After taking account of subcontracted work, firms in 40 states were participating in NASA work, many of which were not involved in space work at the prime contractor level at all. However, as shown in Figure 3, the regional distribution of these selected NASA subcontracts is also concentrated in the higher income states, but in a somewhat different fashion than the agency's prime contracts. The Far West's share of these subcontracts was somewhat lower than of prime contracts, but other high income areas, such as the Mideast and New England states, received a much larger share of these subcontracts than of total prime awards. The Southeast--the region with the lowest per capita income--received a substantially smaller share of the sample subcontracts than of total awards. In part, this may reflect the limited nature of the sample as well as the smaller industrial bases of the lowest income states. The middle income regions obtained subcontracts in similar proportions to their shares of prime NASA contracts.

Non-defense Purchases-Corps of Engineers

During the fiscal year 1963, Congress appropriated $846 million for civil works
construction activities of the Army Corps of Engineers; of this amount, projects
totaling $551 could be allocated by state or at least by region. /15 The non-
allocable expenditures included lump-sum repair and modification funds.

Region	Amount of Expenditure (in thousands)	Percentage Distribution		
		Engineer Expenditures	Population	Personal Income
Far West	$124,546	22.6	12.6	14.8
Mideast	55,758	10.1	21.4	24.6
New England	7,815	1.4	5.8	6.5
Great Lakes	31,889	5.8	19.8	21.0
Plains	116,065	21.1	8.3	7.9
Rocky Mountains	1,804	0.3	2.4	2.3
Southwest	95,612	17.3	8.0	6.8
Southeast	118,118	21.4	21.7	16.1
TOTAL	551,607	100.0	100.0	100.0
Gini Coefficients		- .046		+ .090

Although the operations of the Corps of Engineers cover all 50 states, major new
projects for navigation, flood control, hydroelectric power, and similar purposes
are centered in the western and southern regions: the Far West, the Southeast,
the Plains States, and the Southwest, in that order. Various reasons may be
offered for this geographic pattern. The Rocky Mountain states are virtually
excluded from the Corps of Engineer projects, but receive a major share of

Bureau of Reclamation water resource development work. Also, Corps of Engineer operations in the older areas, such as the Mideast, New England, and Great Lakes, are in a more advanced state requiring mainly operation and maintenance and relatively little new construction. Also costs of potential new projects may be extremely high in these high density areas.

Non-defense Purchases-Bureau of Reclamation

During the fiscal year 1963, the Bureau of Reclamation had individual project expenditures in 17 western states totaling $168.9 million, plus $94.5 million expended for the Colorado River Storage Project and $59.5 million which it contributed to the multiagency Missouri River Basis Development Project. /16   In most cases, an individual project is located in one or more states in the same region, thus permitting a ready regional identification. In some cases, projects extend over more than one income region. The regional assignments for these projects generally were made with reference to project maps contained in the Bureau of Reclamation reports cited; these sources indicated in which region the bulk of the area covered by the project was located, but not necessarily the bulk of the funds utilized in the year.

State and regional data for the Colorado River Storage Project were allocated by applying to the 1963 expenditure data the ratios of the regional shares of the total allocation for the life of the project, as annual regional breakdowns were not available.

Region	Amount of Expenditure (in thousands)	Percentage Distribution		
		Reclamation Expenditures	Population	Personal Income
Far West	$94,849	29.4	12.6	14.8
Mideast	-------	0.0	21.4	24.6
New England	-------	0.0	5.8	6.5
Great Lakes	-------	0.0	19.8	21.0
Plains	41,240	12.8	8.3	7.9
Rocky Mountains	114,225	35.4	2.4	2.3
Southwest	72,540	22.4	8.0	6.8
Southeast	------	0.0	21.7	16.1
Total	322,854	100.0	100.0	100.0
Gini Coefficients		-.028		+.090

The geographic concentration of Bureau of Reclamation expenditures is greater than that of the Corps of Engineers. The Bureau's activities are limited to the western states, specifically to the Far West, Plains, Rocky Mountains, and Southwest. The regional concentration is most pronounced in the Rocky Mountains area, which has a little over 2 percent of the Nation's income and population and 35 percent of the reclamation expenditures. Of course, it should be recalled that the related water resource activities of the Corps of Engineers are minimal in the Rocky Mountain states and quite significant in the other western regions.

Grants-Nondefense Purchases-Highways

Federal grants-in-aid under the highway programs are made for two purposes: (1)
the National System of Interstate and Defense Highways, commonly called the
Interstate System and (2) Federal-aid to primary, secondary, and urban highways,
referred to as the ABC system. As these grants are made on a state basis, the
data were readily available. [17]

Region	Amount of Expenditure (in thousands)	Percentage Distribution		
		Highway Expenditures	Population	Personal Income
Far West	$414,425	13.9	12.6	14.8
Mideast	449,602	15.1	21.4	24.6
New England	148,705	5.0	5.8	6.5
Great Lakes	584,992	19.6	19.8	21.0
Plains	282,136	9.5	8.3	7.9
Rocky Mountains	171,729	5.8	2.4	2.3
Southwest	276,858	9.3	8.0	6.8
Southeast	648,526	21.8	21.7	16.1
Total	2,976,973	100.0	100.0	100.0
Gini Coefficients		- .048		+ .090

Apportionments to states under the ABC system are made according to formulas
taking into account population, area, and postal route mileage. Under the Inter-
state System, Federal funds are allocated in reference to "population, service,
transportation requirements of industry, commerce and agriculture, system inte-
gration, and needs of national defense." [18] None of these criteria relate
directly to regional income differentials. Nevertheless, in 1963, the four
regions with the lowest average per capita incomes--the Southeast, the Southwest,

the Rocky Mountains, and the Plains states--received larger shares of federal

highway funds than would have corresponded either to their shares of income or

population. This apparently reflects the tendency for areas with low average

incomes to have a low population density, and hence, benefit more than propor-

tionately from program expenditures determined on a spatial basis. Three of the

higher income regions received lower than average per capita shares; these were

all in the East--the Mideast, New England, and Great Lakes states. The share of

highway funds received by the Far West was slightly higher than what would have

been the result of a straight per capita distribution, but slightly lower than

its corresponding share of total income.

It should be realized that the amount of federal-aid highway funds that a region

received in 1963 is, in part, a function of how much of its original mileage

allocations it had already completed and the speed at which it was constructing

the remainder. The proportion of completion on the interstate system, for example,

varies considerably by state. Over a period of years, therefore, regional dis-

tribution of funds may not follow the 1963 pattern.

Grants-Nondefense Purchases-Education

For purposes of comparison, a new nondefense governmental program is here analyzed,

as an example of additions to the federal budget for "Great Society" functions--

the 1965 legislation for aid to elementary and secondary education. A major

feature of this new act is the financial assistance to school districts with a

high proportion of low income families. Funds are allotted to school districts

or counties where at least 100 school-age children or 3 percent of the total

school-age children are from families with annual incomes under an established
"low income factor" ($2,000 for fiscal year 1966). The grant for each district
is equal to the average state expenditure per pupil multiplied by the number
of children aged 5-17 from low-income families. Data are readily available on
a state-by-state basis. /19

Region	Amount of Expenditure	Percentage Distribution		
	(in thousands)	Education Expenditures	Population	Personal Income
Far West	$ 96,531	9.3	12.6	14.8
Mideast	182,565	17.6	21.4	24.6
New England	31,984	3.1	5.8	6.5
Great Lakes	147,650	14.2	19.8	21.0
Plains	92,934	8.9	8.3	7.9
Rocky Mountains	18,614	1.8	2.4	2.3
Southwest	108,865	10.5	8.0	6.8
Southeast	359,738	34.6	21.7	16.1
Total	1,038,881	100.0	100.0	100.0
Gini Coefficients		- .188		+ .090

There has been some question as to whether the legislation in practice does suc-
ceed in channeling funds in a major way to low-income areas. The comparisons
in the accompanying table are revealing. With the exception of the Rocky Moun-
tain states, the lower income regions receive substantially larger shares of the
education funds than is indicated by their population or income ratios. The four
higher-income regions, conversely, receive significantly lower shares than would
result from a distribution based either on population or income. This emphasis

on low income states (as measured by comparative Gini coefficients, for example)
exceeds all other federal programs examined in this study, except agricultural
subsidies.

Subsidy Programs-Farm Price Supports

In practice, farm price support payments take the form of non-recourse loans
whereby the farmer receives a loan on his commodity equal to its value at the
support price. If, within a specified time period, the market price rises above
the support price, the farmer is free to sell his commodity and repay the loan.
In most cases, however, the commodity by default becomes the property of the
Commodity Credit Corporation of the U.S. Department of Agriculture. Hence, the
geographic distribution of CCC loans--which is readily available--could be used
as a good proxy for the regional allocation of farm price support payments. [20]

Region	Amount of Expenditures (in thousands)	Percentage Distribution		
		CCC Loans	Population	Personal Income
Far West	$134,000	4.3	12.6	14.8
Mideast	8,510	0.3	21.4	24.6
New England	952	*	5.8	6.5
Great Lakes	282,957	9.2	19.8	21.0
Plains	974,944	31.7	8.3	7.9
Rocky Mountains	47,957	1.6	2.4	2.3
Southwest	676,988	22.0	8.0	6.8
Southeast	951,562	30.9	21.7	16.1
Total	$3,077,870	100.0	100.0	100.0

* less than 0.05 percent

Gini Coefficients	- .410		+ .090

As would be expected, the bulk of the CCC payments goes to the regions with large agricultural sectors, particularly those devoted to the major supported crops--corn, wheat, sorghum grain, tobacco, cotton, and peanuts. Also, these states are generally in the relatively low-income areas. Hence, there is a striking correspondence between farm price support payments and low-income areas.

About 53 percent of the funds are channeled to the Southwestern and Southeastern states which, by way of comparison, received less than 23 percent of total personal income and have slightly less than 30 percent of the national population. It should be noted that the total farm subsidy program and the geographic distribution of expenditures fluctuates from year to year as market conditions change, commodities are added to or deleted from the price support program, or benefit levels and arrangements are altered.

Direct Transfer Payments: Veterans Compensation and Pensions

Region	Amount of Expenditure (in thousands)	Percentage Distribution		
		Veterans Payments	Population	Personal Income
Far West	$436,666	11.7	12.6	14.8
Mideast	749,677	20.1	21.4	24.6
New England	252,582	6.8	5.8	6.5
Great Lakes	643,206	17.2	19.8	21.0
Plains	332,703	8.9	8.3	7.9
Rocky Mountains	92,102	2.5	2.4	2.3
Southwest	330,052	8.9	8.0	6.8
Southeast	892,113	23.9	21.7	16.1
Total	3,729,101	100.0	100.0	100.0
Gini Coefficients		- .035		+ .090

Veterans transfer payments are of two types: compensation and pensions.[21] Disability compensation provides financial assistance to veterans with service-connected disabilities to compensate them for the loss of earning power.

Pensions are paid to needy veterans without service-connected disabilities or to needy dependents (unmarried minor children and unremarried widows) of veterans who died as a result of non-service-connected causes. Monthly payments range from $25 for a widow, without a child, whose annual income is between $1200 and $1800 to $75 for a widow with one child whose annual income does not exceed $1000.

As indicated by the comparatively low Gini coefficient (-.035), veterans compensation and pension payments are fairly equally distributed. Each of the four lower-income regions receives a slightly more than proportionate share of such federal funds. Conversely, three out of the four higher-income regions (the exception being New England) receives slightly less than proportional shares of such payments.

Grant Transfer Payments: Public Assistance

Region	Amount of Expenditure (in thousands)	Percentage Distribution		
		Assistance Payments	Population	Personal Income
Far West	$401,974	15.1	12.6	14.8
Mideast	422,683	15.9	21.4	24.6
New England	157,140	5.9	5.8	6.5
Great Lakes	384,450	14.5	19.8	21.0
Plains	232,105	8.7	8.3	7.9
Rocky Mountains	75,695	2.8	2.4	2.3
Southwest	288,836	10.9	8.0	6.8
Southeast	698,401	26.2	21.7	16.1
Total	$2,661,284	100.0	100.0	100.0
Gini Coefficient		- .061		. +.090

Public assistance grants cover five programs: old-age assistance, aid to the permanently and totally disabled, aid to the blind, aid to families with dependent children, and medical assistance for the aged. Federal funds are distributed according to formulas determined by statute. For example, under the old-age assistance formula the state is reimbursed for 83 percent of its first $35 monthly payment per recipient plus a proportion of the next $35 which varies inversely with the average per capita income in the state for the most recent three years: an exception is provided, the federal grant shall neither be less than 50 percent nor more than 65 percent in any state. /22

Some states did not participate in all five public assistance grants. Alaska and Nevada in 1963 had no programs for the permanently and totally disabled and only 25 states had programs for the medically needy aged.

As would be expected, the four lower-income regions received a substantially larger proportion of public assistance payments than their share of either population or income. Their shares of public assistance grants were also higher than their shares of veterans' compensations and pensions, the other transfer payment program analyzed. However, only two out of the four higher-income regions--the Mideast and the Great Lakes--had lower shares of public assistance payments than of either income or population.

Direct Operations: Federal Government Employment

Region	Wage & Salary Disbursements			Percentage Distribution			
	Civil-ian /a	Mili-tary /b (millions)	Com-posite	Civil-ian	Mili-tary	Com-posite	Popu-lation
Far West	$1,186	$2,642	$3,828	13.4	20.8	17.7	12.6
Mideast	2,707	2,057	4,764	30.5	16.2	22.0	21.4
New England	417	592	1,009	4.7	4.6	4.7	5.8
Great Lakes	1,192	1,015	2,207	13.4	8.0	10.2	19.8
Plains	697	645	1,342	7.8	5.1	6.2	8.3
Rocky Moun-tains	330	493	823	3.7	3.9	3.8	2.4
Southwest	592	1,713	2,305	6.7	13.4	10.7	8.0
Southeast	1,763	3,567	5,330	19.8	28.0	24.7	21.7
Total	8,884	12,724	21,608	100.0	100.0	100.0	100.0

Gini Coefficients: Civilian +.058; Military -.0295; Composite +.016

/a Excludes civilian employees of the Department of Defense. Average of calendar years 1962 and 1963.

/b Includes DOD civilian employees.

The final category of federal expenditures analyzed was wage and salary payments to the employees of the federal government. Relatively complete data were available. [23] Compared to the other expenditure categories covered, this segment of the federal budget showed no consistent pattern in favor of either high or low income regions; also the variances from a straight per capita distribution were smaller.

The data could also be divided between defense and civilian employment. It should be noted that the concept of defense employment used here is broader than that employed by the Department of Commerce, as it covers both members of the armed services and civilian employees of the Department of Defense (adjustments were made by use of the data cited in footnote 23).

The results were rather interesting. The geographic distribution of defense employment is mildly equalizing, reflecting the tendency to locate military installations in low density areas and in the low-income southern states. This equalizing tendency was not noticeable enough, however, to offset the opposite effect of military procurement, and also is far more irregular.

Conversely, the employment of the civilian agencies of the federal government is slightly in the reverse direction, with somewhat more than proportional numbers being located in the higher-income states. This, it might be rationalized, reflects the heavy demands of industry on such labor-intensive government operations as the Post Office. On balance, the mild departures of military and civilian federal employment from a straight per capita distribution appear to be almost offsetting.

Some Comparisons and Findings

In an attempt to offer some aggregate comparisons and conclusions, it might be helpful to borrow some concepts from the field of public finance. The influence of the geographic distribution of federal programs on regional income differentials can be considered progressive, proportional or regressive. The progressive programs are those that tend to soften or reduce the inequality in the distribution of personal income among regions. The proportional programs are those that have little or no effect on regional income distribution, and the regressive programs are those that tend to accentuate inequality in the geographic distribution of income.

It should be noted, of course, that this is a partial analysis, abstracting from the regional distribution of federal tax payments. The geographic distribution of federal revenue receipts is readily available, so that the absence from this study does not reflect mere researcher's convenience. Also, this question has been amply explored in the past by Mushkin and Labovitz, particularly. Rather, this study focuses not on the balance of federal revenues and expenditures in a given region, but on the implications of shifts in the composition of the expenditures. This focus should not be arbitrary, as the vast bulk of federal revenues is not earmarked but goes into the general fund of the Treasury; hence, the shift of a billion dollars from defense to welfare programs will have a relatively minor impact on the location of revenue collections.

A number of limitations of the federal expenditure data need to be kept in mind. First of all, only selected programs in a single year have been included in this study. Also the level of aggregation necessarily ignores the substantial

differences which inevitably occur at state and local levels. Furthermore, it
is possible to conjur up potentially new federal programs whose regional patterns
vary substantially from those analyzed here. For example, it is probable that
some of the proposals made in recent years to utilize the high technology and
systems management capability of the defense industries in meeting public sector
needs of a civilian nature would result in geographic patterns more similar to
defense than to current nondefense procurement. With these caveats in mind, let
us fill in the progressive, proportional, and regressive boxes. (see Table 1)

In the progressive category, there is an array of federal programs, ranging from
grants-in-aid to subsidies to transfer payments. All of the civilian government
programs here analyzed fall in this group, except for NASA procurement and direct
federal employment. The rankings within the so-called progressive category may
be of interest. Farm price support payments are highest on the list; that is,
they are more oriented to the low-income regions than any of the others.

The second ranking progressive program, although not too close behind farm price
supports, is the new aid to education program, which has a built-in anit-poverty
orientation. The others in the progressive category are, in descending order,
public assistance, highway grants, Corps of Engineer projects, veterans' pensions
and compensations, and Bureau of Reclamation projects. Overall, the lowest income
regions--the Southeast and the Southwest--received 35 percent of federal civilian
expenditures (as covered in this study), compared to 30 percent of the population,
and 23 percent of total personal income. (see Table 2) Conversely, the two
highest income regions--the Far West and the Mideast--received only 30 percent
of these federal civilian expenditures, compared to 34 percent of the population
and 39 percent of the income. Thus, the spatial pattern of distribution of these

Table 1

RANKING OF FEDERAL EXPENDITURE PROGRAMS, 1963

Program	Gini Coefficient
Progressive	
Farm price support payments	-.410
Aid to elementary and secondary education	-.172
NONDEFENSE COMPOSITE	-.071
Public assistance	-.061
Highway grants	-.048
Corps of Engineer projects	-.046
Veterans pensions and compensation	-.035
Reclamation projects	-.028
Proportional	
Government employees wages and salaries	+.016
Regressive	
Defense procurement	+.232
NASA procurement	+.322

Table 2

Regional Shares of Population, Income, and Selected Federal Expenditure Programs, 1963
(Percentage Distributions)

Region	Population	Personal Income	Defense	Composite Non Defense	NASA	Reclamation	Highways	Veterans	Public Assistance	Corps of Engineers	Education**	Farm Subsidies
Low Income	29.7	22.9	17.8	36.2	21.8	22.4	31.1	32.8	37.1	38.7	45.1	52.9
Southeast	21.7	16.1	11.2	24.6	18.8	--	21.8	23.9	26.2	21.4	34.6	30.9
Southwest	8.0	6.8	6.6	11.6	3.0	22.4	9.3	8.9	10.9	17.3	10.5	22.0
Average Income	36.3	37.7	32.1	33.9	15.8	48.2	39.9	35.4	31.9	28.6	28.0	42.5
Rocky Mountain	2.4	2.3	4.2	3.2	0.4	35.4	5.8	2.5	2.8	0.3	1.8	1.6
Plains	8.3	7.9	6.3	13.8	9.6	12.8	9.5	8.9	8.7	21.1	8.9	31.7
Great Lakes	19.8	21.0	12.6	13.0	3.3	--	19.6	17.2	14.5	5.8	14.2	9.2
New England	5.8	6.5	9.0	3.9	2.5	--	5.0	6.8	5.9	1.4	3.1	*
High Income	34.0	39.4	50.1	29.9	62.4	29.4	29.0	31.8	31.0	32.7	26.9	4.6
Mideast	21.4	24.6	22.0	12.9	11.8	--	15.1	20.1	15.9	10.1	17.6	0.3
Far West	12.6	14.8	28.1	17.0	50.6	29.4	13.9	11.7	15.1	22.6	9.3	4.3

* Less than .005 percent

** Program for fiscal year 1966

federal non-defense programs tend to reduce regional income inequality. The policy implications are quite clear--the continued expansion in domestic civilian programs which appear to be part of the Great Society concept will tend to reduce the disparities in income among the different areas of the country. Some of these programs may be more effective in this regard than others (education versus public works), but they all seem to tend in the same direction of greater equality of income distribution, again to be borne in mind, in a spatial sense.

The proportional category, of course, covers the direct wage and salary payments to federal employees and is fairly stable. There is little indication of significant long-term growth in this category of federal expenditures.

The so-called regressive category consists of Defense and NASA purchases from private industry. The Department of Defense shows up as somewhat less regressive. However, it should be borne in mind that--for the same kind of high-technology programs--NASA and military geographic distribution patterns appear to be quite similar. The slightly less regressive overall position of military purchases arises from the inclusion of a large amount of medical, office, ordnance and similar supplies which are provided by more traditional industries.

The so-called regressive programs have tended to account for a declining portion of both the GNP and the federal budget in recent years. However, the trend has not been a smooth one. The nation is presently witnessing another upturn in the defense budget cycle, but the long-term trend line would appear to be downward sloping, in terms of the relative importance of the defense and space programs to either the national economy or the federal budget.

Because of the variations in the regional distributions among the various federal programs examined here, it may be helpful to indicate some of the more extreme differences. The following is one among many conceivable ways of presenting the information. This report contains no value judgments as to what the regional patterns should be. For each of the eight income regions, the following table identifies the federal program from which each receives its largest share compared to all other programs, and then the program from which it receives its smallest share. For example, the far western states obtain a greater share of NASA prime contracts than their portion of any other federal program. Conversely, their proportion of farm subsidies is lower than their portion of any other of the federal programs covered here.

Region	Program In Which It Obtains Largest Share	Program In Which It Obtains Smallest Share
Far West	NASA	Farm Subsidies
Mideast	Defense	Reclamation
New England	Defense	Reclamation
Great Lakes	Highways	Reclamation
Plains	Farm Subsidies	Defense
Rocky Mountains	Reclamation	Corps of Engineers
Southwest	Reclamation	NASA
Southeast	Education	Reclamation

This type of information may lend itself to various interpretations. The most sanguine one may be that the variations tend to offset each other. For example, the Rocky Mountain states get the lion's share of reclamation projects and an insignificant portion of Corps of Engineer projects. Hence, when the two programs are taken in conjunction, the extreme values for this region are greatly reduced. A more Machiavellian interpretation may be that such information lends

itself to the formulation of state or regional strategies to "maximize" their shares of the federal budget, by urging the expansions of the programs from which they receive the largest amounts and advocating the curtailment of others (of course, many supporters of sectional interests may be doing this intuitively already).

The purpose of this entire analysis is more neutral, simply to shed some light on the important question of the economic impact of the regional distribution of federal funds. That implications may be drawn by others for purposes of public policy should be expected. Indeed, it may be hoped that this would raise the level of argument.

Conclusions

The basic implication that follows from this analysis is that the current expansion in the Great Society and other domestic civilian programs of the federal government is resulting in a shift in the geographic distribution of federal expenditures. This shift, in turn, should work towards a change in the regional distribution of income in the United States, and in a very specific way--toward greater income equality.

The following tentative findings are offered with the caveat that research is continuing and may alter some of these initial results:

1. The first and rather elementary finding may be the most fundamental one. The regional distribution of federal spending for defense and space programs differs quite significantly from the pattern of non-defense programs of the federal government (see Figure 4). Moreover, the difference appears neither to be capricious nor arbitrary.

Figure 4

REGIONAL COMPARISON OF FEDERAL EXPENDITURE, DEFENSE AND NONDEFENSE
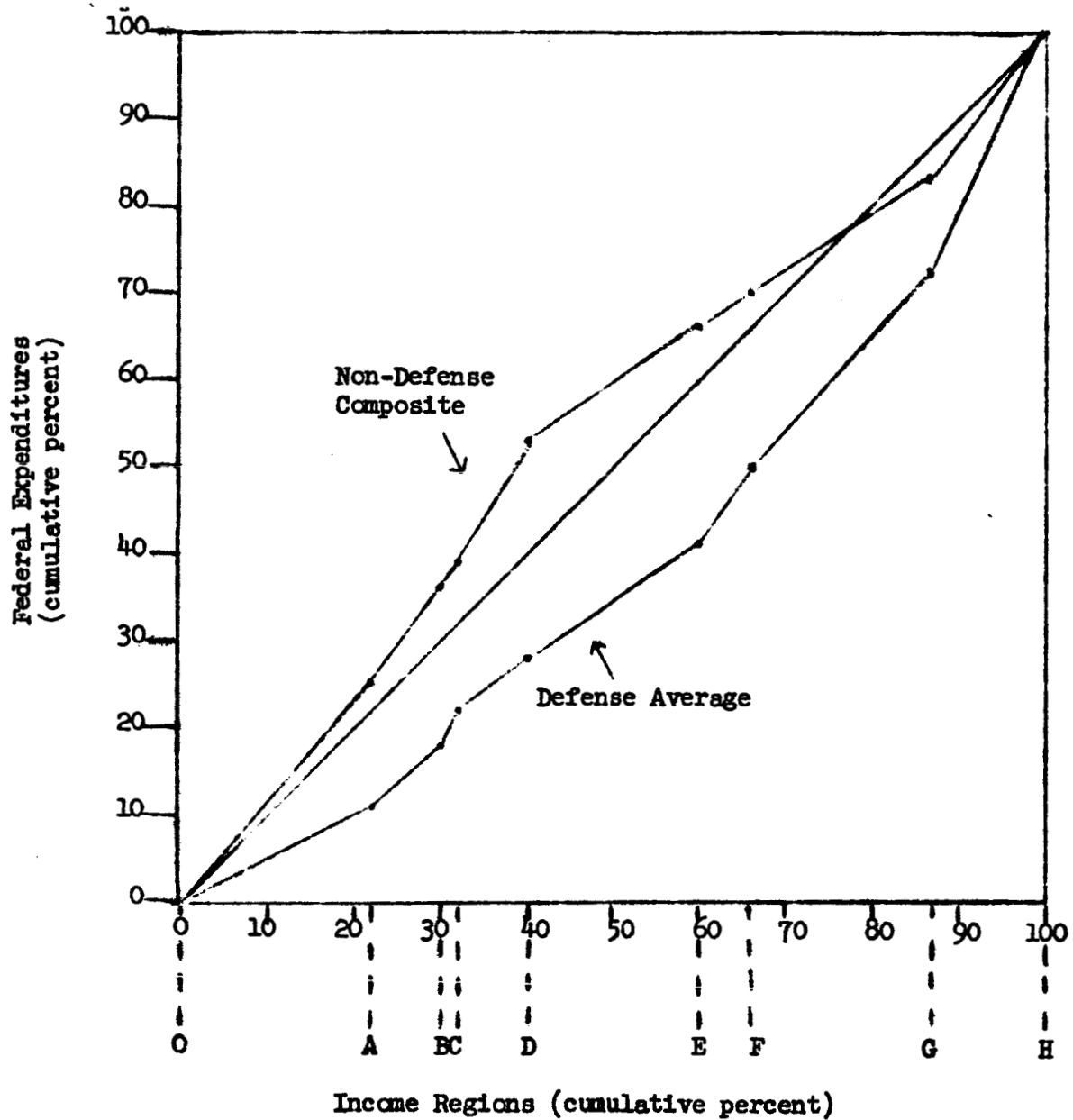
Income Regions (cumulative percent)

OA - Southeast
AB - Southwest
BC - Rocky Mountains
CD - Plains
DE - Great Lakes
EF - New England
FG - Mideast
GH - Far West

2. In general, the low income states tend to receive a larger than proportional share (in relation to a simple per capita distribution) of expenditures for the non-defense public programs. This reflects, of course, the welfare orientation implicit or explicit in so many of these programs.

3. In contrast, the high income states tend to receive a larger than proportional share of expenditures for defense and space programs, thus reflecting the dependence on the highly industrialized areas for the design and production of weapon and space systems.

4. Hence, a shift in the federal budget from defense to non-defense activities—assuming no fundamental alteration in the geographic distribution patterns of individual public programs—would tend to narrow income inequality among the various regions of the United States. This, of course, is what has been happening during the past few years. (See the appendix for a hypothetical analysis showing the comparatively mild effects of a 50 percent reduction in defense spending and an offsetting aggregate increase in federal non-defense expenditures.) Conversely, a shift to defense programs would tend to widen the range of income inequality among regions, at least under present conditions.

5. Significant differences in geographic allocations exist among the various types of non-defense spending programs of the federal government. (see Table 2) The farm price support subsidies, for example, favor the low-income areas to a greater extent than any other program analyzed. Also, the new aid to elementary and secondary education legislation is more heavily oriented to low income regions than the traditional federal welfare programs, even more than pure transfer payments such as public assistance or veterans pensions. The new education program also shows up better in this regard than the initial anti-poverty projects of the Office of Economic Opportunity. However, it may be too early to read too much into the preliminary returns in the case of the OEO program. /24

6. A basic limitation to the analysis thus far undertaken is that the data are limited to the geographic distribution of income and federal expenditures and do not directly shed light on questions of income-class distribution. That is, the finding that federal payments for farm subsidies go primarily to low income states does not signify that these funds necessarily go to low-income individuals in any significant proportion. However, it would appear that a shift from defense to non-defense government spending might tend to reduce income class inequality because so much of defense spending is utilized for managerial, professional and highly-skilled employees, dividend recipients, and similar above-average income groups. Much additional research needs to be done along these lines before any findings can be offered with confidence.

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Footnotes

/1

The author wishes to acknowledge the major contribution made to this paper
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earlier version was presented to the Seventh Annual Conference of the Center
for Economic Projections of the National Planning Association in October 1965.

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Appendix: A Hypothetical 50% Reduction in Defense Spending*

This appendix analyzes the implications for the regional distribution of in-come of a hypothetical shift in the composition of Federal Government spending in the United States. It specifically examines what would have happened to the regional distribution of personal income in 1963 if Defense Department contracts with private industry were reduced by 50% and the funds so released were shifted to federal non-defense programs in the proportions existing among these civilian programs prior to the shift. The reasonableness of these assumptions are not defended, particularly within the confines of a rigid ceteris paribus assumption.

1. Data and Measures Adopted

The state-by-state data on the various types of federal expenditures, as well as on population and income, were taken from the body of this report. The income generating coefficients for each state for exogenous sources of income were taken from the Bolton doctoral dissertation, a source cited in the earlier section on defense purchases. The results appearing in this appendix are arrived by deducting one-half of the defense expenditures allocated to each state from its total personal income and reallocating to each state the share of the defense reduction corresponding to its share of non-defense expenditures from the Federal Government. The results of this reallocation of government expendi-tures vary from state to state and individual sums may be positive or negative. Two methods of computing personal income in each state after a shift of government expenditures are presented here. The simplest one (method A) is adding the net balance after the shift to each state's personal income in 1963. The other (method B) involves the use of a model of state income determination.

Results from the two methods are shown in table 4.

* Much of the analysis in this appendix was performed by Mr. Ben-Chieh Liu.

II. Methodology

Method A can be symbolized as follows: $Y_{p1} = Y_p + N-M$

Method B can be derived as follows:

In order to see how method B is deduced from the Bolton study, and because his estimates of income generating coefficient for exogenous sources for each state are employed here, it is necessary to begin by presenting his formulas. The following are the Bolton formulas for calculating personal income for each state:

1. $Y_p = Y_h + P + E$

2. $Y_h = a + h (Y_p) = \dfrac{a}{1-h} + \dfrac{h}{1-h} (P + E)$

Where Y_p = personal income

Y_h = wages and salaries and proprietor's income in local industries

P = property income and transfer payments.

E = Wages and salaries and proprietor's income in industries for which demand is exogenous, including farm, export industries, and government defense expenditures as well.

a and h are constants

By shifting one half of defense purchases (M) to federal non-defense expenditures (N), we can, similarly, derive formulas as the following:

$Y_{p1} = Y_{h1} + P + E$

$Y_{h1} = \dfrac{a}{1-h} + \dfrac{h}{1-h} (P+E+N-M)$

$Y_{p1} - Y_p = Y_{h1} + P + E - Y_h - P - E$

$= Y_{h1} - Y_h$

$$= \left[\frac{a}{1-h} + \frac{h}{1-h}\ (P + E + N-M)\right] - \left[\frac{a}{1-h} + \frac{h}{1-h}\ (P+E)\right]$$

$$= \frac{h}{1-h}\ (N-M)$$

$$Y_{p1} = Y_p + \frac{h}{1-h}\ (N-M)\ \ldots\ (B)$$

III. Personal Income Distribution After the Shift in Government Spending

Total government defense purchases in the United States in 1963 were $25.2 billion. In this hypothetical study, 50% or $12.6 billion is now supposed to have been shifted to Federal Government non-defense programs. The $12.6 billion is apportioned to each state on a percentage basis, in the same manner as actual non-defense expenditures by the Federal Government were allocated in the body of this study. The actual percentage distributions of government expenditures are shown in the table below.

Table 1 Actual Distribution of Federal Expenditures in 1963

	Actual Non-defense Expenditures	Actual Defense Expenditures
New England	4.0%	9.0%
Mideast	13.0%	22.0%
Great Lakes	13.1%	12.6%
Plains	13.9%	6.3%
Southeast	24.9%	11.2%
Southwest	11.0%	6.6%
Rocky Mountains	2.9%	4.2%
Far West	17.2%	28.1%
United States	100.0%	100.0%
Total amount (million)	$16,377 /1	$25,232

/1 The expenditures on the Colorado River project in the Bureau of Reclamation are omitted, because they could not be allocated by state.

Therefore, the Southeast region would obtain the largest share (24.9 percent) of the $12.6 billion which here is hypothetically reallocated; the Far West region would have a net loss of about $1.4 billion.

1. **Personal income distribution by method A ($Y_{pi} = Y_p + N-M$):** Using this method, the amount of personal income in any state or region would not be affected so long as the absolute amount deducted is the same as the absolute amount added. In this approach, the total personal income in 1963 would not be altered at all. The following table shows the results obtained by this method. States not influenced by the reallocation of government expenditures are not listed.

It is clearly shown by the table that the Southeast would have the highest percentage increase in the regional distribution of personal income (0.4 percent of the total personal income) and the Far West the largest proportional decline (a fall of 0.4 percent of total personal income). The rest of the regions are little influenced. The increase in the Southeast is shared by four states while the decrease in the Far West is almost entirely taken by California. In addition, New York has also shown a relatively higher percentage-wide decrease (by decreasing 0.2 percent of the total.

Table 2

Hypothetical Reallocation of Personal Income

	Percent of Total Personal Income in 1963	Percent of Total Redistributed Personal Income
New England	6.5	6.3
Massachusetts	3.3	3.2
Connecticut	1.8	1.7
Mideast	24.6	24.4
New York	11.6	11.4
New Jersey	4.1	4.0
District of Columbia	0.5	0.6
Great Lakes	21.0	21.0
Illinois	6.5	6.6
Wisconsin	2.1	2.0
Plains	7.9	8.1
North Dakota	0.2	0.3
Nebraska	0.7	0.8
Southeast	16.1	16.5
Tennessee	1.4	1.5
Alabama	1.2	1.3
Louisiana	1.3	1.4
Arkansas	0.6	0.7
Southwest	6.8	7.0
Texas	4.6	4.7
New Mexico	0.4	0.5
Rocky Mountains	2.3	2.3
Montana	0.3	0.4
Colorado	1.1	1.0
Far West	14.8	14.4
California	11.3	11.0
Alaska	0.2	0.1
U.S. Total ($ million)	461,610	461,610

2. <u>Personal income distribution by method B:</u>   Under this method, $Y_{pl} = Y_p +$ $\frac{h}{1-h}$ (N-M), the income generating coefficient ($\frac{h}{1-h}$) is applied to the deduction from defense expenditures and the increase of non-defense expenditures. Total personal income in the United States after the shift would have been larger than the actual figure in 1963, $462.1 billion compared to $461.6 billion, because of the different income generating coefficients among the various states. Results computed by this method are presented in the following table. Again, states not affected by the reallocation of government expenditures are not listed.

The Far West would suffer the highest proportional decrease, 0.4 percent of total personal income. The Mideast and New England regions would decrease by 0.3 percent and 0.2 percent of the total, respectively. Obviously, the Southeast would have a larger increase, by 0.5 percent of total personal income and the Plains and Southwest would also show offsetting increases. The positions of the Great Lakes and Rocky Mountains regions would be unchanged. The income shares of California and New York State would be decreased more than any other state; aside from Texas, no state would increase its share of total personal income by more than 0.1 percent.

Table 3

Hypothetical Reallocation of Personal Income--Method B

	Percent of Total Personal Income in 1963	Percent of Total Redistributed Personal Income
New England	6.5	6.3
Massachusetts	3.3	3.2
Connecticut	1.8	1.7
Mideast	24.6	24.3
New York	11.6	11.4
New Jersey	4.1	4.0
Maryland	2.0	1.9
District of Columbia	0.5	0.6
Great Lakes	21.0	21.0
Illinois	6.5	6.6
Wisconsin	2.1	2.0
Plains	7.9	8.1
Iowa	1.4	1.5
North Dakota	0.2	0.3
Southeast	16.1	16.6
Kentucky	1.2	1.3
Tennessee	1.4	1.5
Alabama	1.2	1.3
Louisiana	1.3	1.4
Arkansas	0.6	0.7
Southwest	6.8	7.0
Texas	4.6	4.8
Rocky Mountains	2.3	2.3
Montana	0.3	0.4
Colorado	1.1	1.0
Far West	14.8	14.4
Nevada	0.3	0.4
California	11.3	10.9
Alaska	0.2	0.1
U.S. Total ($ million)	461,610	462,109

3. **Comparisons of the two methods**: Under the assumptions given, the regional distribution of personal income actually realized in 1963 differs slightly from the results produced by method A, with no change in total personal income. To some extent, the results shown by method B are likely to be similar to those of method A to the extent that regions absorbing lower proportions of civilian than of defense expenditures would have a reduced share of total redistributed personal income, while those regions with higher proportions of non-defense expenditures would show a larger share of total redistributed personal income. In addition, method B yields a higher total of personal income than was actually realized in 1963 by about $0.5 billion.

Because of its greater sophistication in taking account of the multiplier effects of changes in government spending, method B is considered to be superior to method A.

IV Summary and Conclusion

A reallocation of 50 percent of Federal Government defense expenditures to non-defense programs in 1963, other things being equal, would have reduced the differentials in regional income distribution in the United States.

Areas of lowest average incomes--such as the Southeast and the Southwest-- would tend to benefit from such a reallocation of public sector resources. Conversely, the high income regions such as the Far West and the Mideast would tend to receive reduced shares of Federal Government spending.

However, these income equalization effects would be mild. As shown in the following table, the total personal income of the Southeast would have been bolstered by about 2-3 percent while that of the Far West would be reduced by about 2 percent.

Table 4

Percentage Change In Regional Personal Income
Under Hypothetical Conditions In 1963

Region	Method A	Method B
Far West	- 2.0	- 2.4
Mideast	- 1.0	- 1.1
New England	- 2.1	- 2.1
Great Lakes	+ 0.1	+ 0.1
Plains	+ 2.6	+ 2.7
Rocky Mountains	- 1.6	- 2.6
Southwest	+ 1.8	+ 2.4
Southeast	+ 2.3	+ 3.3
U.S.	0.0	+ 1.1